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June 4, 2008

Mr. Michael Berkoff
Remedial Project Manager
USEPA Region 5
77 West Jackson Boulevard (SR-6J)
Chicago, IL 60604-3507

Subject:
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Allied Paper, Inc. Operable Unit
Draft Comments on Remedial Investigation Report

Dear Mr. Berkoff:

Millennium Holdings, LLC (Millennium) has reviewed the Allied Paper, Inc. Operable Unit (OU) Remedial Investigation (RI) Report, dated March 19, 2008. Millennium has prepared the following comments on the RI Report, which it reserves the right to supplement.

1. Inorganics in groundwater - throughout report

   The RI Report identifies arsenic, iron, and manganese concentrations in groundwater samples collected from the site as exceeding Part 201 criteria, and indicates that these constituents are emanating from the site. In so doing, the RI Report does not take into account groundwater quality within the Kalamazoo area.

   With respect to arsenic, the RI Report does not explain that background levels in Kalamazoo exceed drinking water standards. For example, Kalamazoo County has long recognized and identified the need for treatment of drinking water to address the naturally high concentrations of arsenic in groundwater. The Kalamazoo County website states:

   > "*Arsenic naturally occurs in earth materials such as bedrock, sand, and gravel. From these earth materials, arsenic can be dissolved into our drinking water. Drinking water in some areas of Kalamazoo County has levels of naturally occurring arsenic that are above the recommended health level,*"

   and

   > "*Water quality problems, such as hardness, arsenic, and high iron, are caused by naturally occurring substances.*"

   Nor does the RI Report explain that Kalamazoo County has very hard groundwater. Information available on the Kalamazoo County website indicates that approximately 4 out of 5 water samples collected from private wells in the City and Township of Kalamazoo exceed the State drinking water standard for hardness, and samples from 1 out of 3 wells exceed the standard for iron. The RI Report does not make it clear that the drinking water standards for manganese

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and iron are not based on impacts to health; they are based on aesthetics, such as taste and potential for staining. Millennium believes that this type of information should have been included in the RI Report to help readers better understand the degree to which naturally-occurring hard groundwater contributes to the inorganic constituents observed in groundwater at the Allied OU.

2. Definition of soils and sediments - Section 4

   The RI Report redefines as sediments more than 50 samples that were previously identified in work plans and reports as soils or residuals. Soils are newly defined as being located only outside of areas that may be "inundated during a high-flow event." High-flow events are defined in Section 3.2.3 as corresponding to a 10 percent exceedance flow, although it is not certain that use of this definition is what is intended in Section 4. No figures or elevation data are provided to indicate where the boundary between sediments and soils occurs, and it is not clear whether consideration has been given to depth. As the report is written, it is difficult for the reader to comprehend the basis for the designation between sediments and soils or how that basis is actually applied.

   Millennium's differences with the definition of sediments identified in the report are reflected in correspondence with the Michigan Department of Environmental Quality (MDEQ) dating back several years. In summary, Millennium believes that a proper definition of sediments should consider not only an appropriate period of inundation during which polychlorinated biphenyl (PCB) concentrations in surface water can come into equilibrium with those in sediments, but physical conditions necessary for fish to actually be exposed to surface water and sediments to gain a corresponding body burden of PCBs. Overall, it is difficult to comprehend the basis of soils and sediment definition.

3. Surface soil/sediment data presentation - Section 4.2 and Figures 4-2A, 4-2F, and 4-3A

   Figure 4-2A presents DHLB-5 and BLHB-2 as surface soil samples and Figure 4-2F similarly presents SP-486 as a surface soil sample. Although Millennium understands that the MDEQ's database may identify these as surface samples based on conditions at the time of collection, these locations were covered with more than 3 feet of cap material many years ago. Section 4.2 of the RI Report acknowledges this shortcoming, however it does not further qualify the data. Similarly, Figure 4-3A presents USEPA Time Critical Removal Action (TCRA) soil confirmation samples as surface sediment samples even though these locations were backfilled with 1 to 10 feet of clean fill immediately subsequent to sampling. Millennium believes that these data are presented inappropriately in the RI Report.

4. Nature and extent of contamination - Section 4 and associated figures

   Figures presenting the nature and extent of chemicals in site media show locations of samples that exceed screening level criteria, but the actual criteria

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are not identified and the reader is unable to identify which criteria were used to screen the data. The text of Section 4 does not further enlighten the reader, specifically as to what locations criteria were applied. Aside from providing clarity to the reader on how the data were reviewed, this issue is important in that some criteria, such as groundwater-surface water interface (GSI) criteria, are not applicable at all locations.

5. Data usability – Section 4.2.2 and throughout Section 4

differentiation of stuff

The RI Report does not adequately distinguish between analytical data for groundwater and leachate on the one hand and for soil and residuals on the other. These data appear to be assessed together, preventing an understanding of which chemical constituents are associated with (or are more prevalent in) each medium. However, Section 4.2.2 concludes that "TAL constituents do appear to be associated with the contaminant impact identified at the site." For this statement to be valid, it is necessary to know whether concentrations of these constituents were higher in residuals than in soils. Millennium notes that several inorganic constituents are higher in native soils than in the paper residuals. In the absence of such a data evaluation, these types of statements are inappropriate.

Similarly, no distinction is made between soils and residuals in the RI Report. Not only does this combination of data deprive the reader from understanding which chemicals are associated with residuals versus soils, it results in misapplication of soil cleanup criteria to residuals.

6. Sediment criteria – Sections 4 and 4.3

The Kalamazoo River Study Group has considerable and well-documented technical objections to the data and methods applied in Risk Assessment Reports developed for the Kalamazoo River, including problems with the underlying data, exposure scenarios, and method for calculating the biota sediment accumulation factors.

The generic application of "site-wide" sediment criteria developed in the CDM risk assessments treats the site as though it is equivalent to any other segment of the Kalamazoo River, and ignores conditions that may differ from segment to segment. Whether or not portions of the Allied OU are inundated, Millennium does not believe that a 30-year consuming angler scenario for this urban industrialized segment of Portage Creek is realistic. The Michigan Department of Community Health angler study researchers did not observe a single angler on Portage Creek, despite several visits looking for them. Fishing access is limited, as is the potential productivity of the fishery, to the extent there is a "fishery" there at all. Millennium does not believe it is credible that there is an angler population of any size that could be supported by this segment of Portage Creek. The studies used to develop the fish consumption rates underlying the sediment criteria have little or no relevance to a location like Portage Creek. Millennium reserves its right to reevaluate the sediment criteria in the Feasibility Study.

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7. PCBs in groundwater - Section 6

   Despite the extensive dataset that indicates minimal impact to groundwater by PCBs at the Allied OU, the RI Report leads the reader to the conclusion that the groundwater/seeps exposure pathway must be addressed due to PCBs. However, Millennium believes that groundwater and seep data indicate the extent and concentrations of PCBs are very limited at the site, and PCB concentrations do not necessarily exceed the State's conservative generic GSI criteria where groundwater discharges to Portage Creek.

   Millennium believes that although samples from two locations contained PCBs at levels exceeding GSI criteria in the most recent sampling effort, these samples are not necessarily representative of groundwater that is discharging to Portage Creek. Specifically, the well screen of fill well FW-101 was installed into waste that was sampled and determined to contain PCBs (thus its identification as a fill well ["FW"] rather than a monitoring well ["MW"]). Aside from concerns related to the representativeness of samples collected from the Seep G/H location, it is observed to be more than 100 feet from Portage Creek. Nearby monitoring wells that are closer to Portage Creek (MW-215, MW-231, MW-226, MW-216) were non-detect for PCBs, suggesting that PCB concentrations (if present at all) drop below detection limits before reaching the creek.

   The RI Report also indicates that the current groundwater extraction system "appears to be capturing some contaminants in groundwater." To the extent that they are naturally-occurring, these should be identified as "constituents," not "contaminants." As for PCBs: several years of analytical data indicate that no PCBs are detected in samples of the water collected by the extraction system prior to treatment (see attached summary table). Therefore, the lack of "hydraulic control measures ... in other areas of the site where waste remains" may not be problematic, nor may these measures be necessary at all for groundwater.

8. Definition of Site - Figure 2

   Several residential properties are shown as being included as part of the Allied OU on Figure 2. The site data indicate that deposits of paper residuals generally terminate on Millennium property (or when the residences encroach on Millennium property), or are present only below several feet of soil where they extend onto adjacent residential properties. PCBs were found below screening level direct contact criteria in all but one sample. The data do not support the inclusion of most of the residential properties as part of the site.

9. Assessment of groundwater elevations - Appendix S and Section 6

   The RI Report identifies an alternate method of assessing groundwater elevations to evaluate whether the groundwater collection system has been properly maintaining elevations within historical norms. Millennium has concerns

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regarding the approach used to evaluate the groundwater elevation data, and believes that it may not be technically valid.

The alternate method developed by the MDEQ determined new background water elevations from three wells located on the Monarch historic residuals dewatering lagoon (HRDL) east of Portage Creek to assess variations in groundwater elevations west of the creek. Portage Creek should be recognized as a significant groundwater divide that may render use of groundwater elevation data from one side of the creek inappropriate for evaluating groundwater elevations from the other side of the creek. The steep surface topography, different surface conditions (paved areas and sewers), and different geologic conditions at the Monarch HRDL result in recharge conditions that are not the same as west of the creek.

Since water elevations for the newly selected background wells were not available for the date from which baseline groundwater elevations were calculated, elevations were interpolated, further adding to the uncertainty of this assessment. Nonetheless, Section 6 of the report states that "the groundwater extraction system is not currently operated to achieve the required goal of keeping groundwater levels to within one foot of the historic groundwater level." Millennium disagrees with the methods for evaluating groundwater elevations presented in the RI Report, as well as any suggestion that resulting mounded groundwater must be mitigated to address risk to human health or the environment.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Millennium Holdings, LLC

Suda Arakere
Environmental Manager
Retained Liabilities & Remediation

Copies:
Paul T. Bucholtz, MDEQ
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# Table 1
## Influent Sampling Data Summary
## Millennium Holdings LLC/Allied Paper Inc. Groundwater Treatment Plant
## Kalamazoo, Michigan
## October 2005 through April 2008

| Year | Sample Date | Analytes | Sample Result | Reporting Limit |
|---|---|---|---|---|
| 2005 | 10/25/2005 | PCBs | ND | 0.1 ug/L |
| | 11/16/2005 | PCBs | ND | 0.1 ug/L |
| | 12/20/2005 | PCBs | ND | 0.1 ug/L |
| 2006 | 1/24/2006 | PCBs | ND | 0.1 ug/L |
| | 2/20/2006 | PCBs | ND | 0.1 ug/L |
| | 3/13/2006 | PCBs | ND | 0.1 ug/L |
| | 3/14/2006 | PCBs | ND | 0.1 ug/L |
| | 3/15/2006 | PCBs | ND | 0.1 ug/L |
| | 3/16/2006 | PCBs | ND | 0.1 ug/L |
| | 4/26/2006 | PCBs | ND | 0.1 ug/L |
| | 5/22/2006 | PCBs | ND | 0.1 ug/L |
| | 6/21/2006 | PCBs | ND | 0.1 ug/L |
| | 7/24/2006 | PCBs | ND | 0.1 ug/L |
| | 8/23/2006 | PCBs | ND | 0.1 ug/L |
| | 9/20/2006 | PCBs | ND | 0.1 ug/L |
| | 10/26/2006 | PCBs | ND | 0.1 ug/L |
| | 11/20/2006 | PCBs | ND | 0.1 ug/L |
| | 12/12/2006 | PCBs | ND | 0.1 ug/L |
| 2007 | 1/22/2007 | PCBs | ND | 0.1 ug/L |
| | 2/19/2007 | PCBs | ND | 0.1 ug/L |
| | 3/13/2007 | PCBs | ND | 0.1 ug/L |
| | 4/23/2007 | PCBs | ND | 0.1 ug/L |
| | 5/9/2007 | PCBs | ND | 0.1 ug/L |
| | 6/7/2007 | PCBs | ND | 0.1 ug/L |
| | 7/24/2007 | PCBs | ND | 0.1 ug/L |
| | 8/22/2007 | PCBs | ND | 0.1 ug/L |
| | 9/19/2007 | PCBs | ND | 0.1 ug/L |
| | 10/22/2007 | PCBs | ND | 0.1 ug/L |
| | 11/12/2007 | PCBs | ND | 0.1 ug/L |
| | 12/10/2007 | PCBs | ND | 0.1 ug/L |
| 2008 | 1/15/2008 | PCBs | ND | 0.1 ug/L |
| | 2/18/2008 | PCBs | ND | 0.1 ug/L |
| | 3/19/2008 | PCBs | ND | 0.1 ug/L |
| | 4/15/2008 | PCBs | ND | 0.1 ug/L |

**Notes:**

[1] Polychlorinated biphenyls (PCBs) including PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, PCB-1260, PCB-1262, and PCB-1268

* Samples analyzed by Consumers Energy Laboratory Services in Jackson, MI

ND = Not detected ug/L = microgram per liter